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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/649,909	08/26/2003	Satyanarayana Dharanipragada	YOR920030259US1	5755

48813 7590 04/04/2008
LAW OFFICE OF IDO TUCHMAN (YOR)
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EXAMINER	
LENNOX, NATALIE	

ART UNIT	PAPER NUMBER
2626	

NOTIFICATION DATE	DELIVERY MODE
04/04/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 10/649,909	Applicant(s) DHARANIPRAGADA ET AL.	
	Examiner NATALIE LENNOX	Art Unit 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *December 24, 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This Office Action has been issued in response to the amendments filed on December 24, 2007. Claims 1-27 are pending with claims 1, 3, 5, 6, 8, 10, 11, 15-17, 21, and 24 amended.

Response to Arguments

1. Applicant's arguments with respect to claims 1, 19, 23, and 26 have been considered but are moot in view of the new ground(s) of rejection.

2. Applicant's arguments filed December 24, 2007 with respect to claims 6, 11, 16 have been fully considered but they are not persuasive.

As per claims 6, 11, and 16, applicant argues that none of the references teach or suggest "creating an independent speech recognition model based on the first set of training data and the second set of training data if the differences in model information between first speech recognition model and the second speech recognition model is insignificant." However, examiner respectfully disagrees given that Chandrasekar et al. teaches that clusters with insignificant differences are merged (Col. 10, lines 59-61 and 65-66). The act of merging the cluster results in the creation of a new different cluster that had not existed prior to the merging. The result of creating a new model based on two to other models equates to the result of merging two models to form one model.

Claim Objections

3. Claim 6 is objected to because of the following informalities: Claim 6, lines 1-2, first claims a "system" for generating speech recognition models and then claims that the "method" comprises. Examiner assumes that this is a mere error, and that the claim meant to cite "the system comprising." Appropriate correction is required.

Claim Rejections - 35 USC § 101

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 1-27 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

With respect to claims 1, 6, 16, and 17 the methods and systems claimed consist solely of mathematical operations without some practical application. By generating speech recognition models, as opposed to recognition models (as previously presented), does not give practical application to the claims. If the "acts" of a claimed process manipulate only numbers, abstract concepts or ideas, or signals representing any of the foregoing, the acts are not being applied to appropriate subject matter. Thus, a process consisting solely of mathematical operations, i.e., converting one set of numbers into another set of numbers, does not manipulate appropriate subject matter and thus cannot constitute a statutory process.

With respect to claims 11 and 24, applicant claims a "computer program product" (emphasis added). There is no description or definition found in applicant's disclosure

regarding the computer program product. This subject matter is not limited to that which falls within a statutory category of invention because it is not limited to a process, machine, manufacture or a composition of matter. This is a practical application in the technical arts, however the computer program product and computer readable program codes as claimed are simply functional descriptive material, and thus a computer program *per se*.

Claim Rejections - 35 USC § 103

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claim 6, 11, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al. (US Patent 6,567,776) in view of Chandrasekar et al. (US Patent 6,578,032).

As per claims 6 and 16, Chang et al. teach a system for generating speech recognition models, the method comprising:

a first speech recognition model based on a first set of training data, the first set of training data originating from a first set of common entities (cluster model 202, Col. 2, lines 35-41, also Fig. 2 shows the two speaker cluster models 202 and 204, each of the speaker cluster models having substantially similar characteristics); and

a second speech recognition model based on a second set of training data, the second set of training data originating from a second set of common entities (cluster model 204, Col. 2, lines 35-41, also Fig. 2 shows the two speaker cluster models 202

and 204, each of the speaker cluster models having substantially similar characteristics).

However, Chang et al. does not specifically mention

a processing module configured to create an independent speech recognition model based on the first set of training data and the second set of training data if the difference in model information between first speech recognition model and the second speech recognition model is insignificant.

Conversely, Chandrasekar et al. teach

a processing module configured to create an independent speech recognition model based on the first set of training data and the second set of training data if the difference in model information between first speech recognition model and the second speech recognition model is insignificant (Col. 10, lines 59-61 and 65-66, For cluster A and cluster C a difference between clusters has been determined to be insignificant. As a result cluster A is merged with cluster C forming a newly merged cluster).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used the feature of determining models and creating an independent model as taught by Chandrasekar et al. for Chang et al.'s system because Chandrasekar et al.'s invention automatically analyzes a text string and either updates an existing cluster or creates a new cluster (Col. 2, lines 2-4).

As per claim 11, Chang et al. teach a computer program product embodied in computer memory comprising:

computer readable program codes coupled to the computer memory for generating speech recognition models, the computer readable program codes configured to cause the program to:

receive a first speech recognition model based on a first set of training data, the first set of training data originating from a first set of common entities (cluster model 202, Col. 2, lines 35-41, also Fig. 2 shows the two speaker cluster models 202 and 204, each of the speaker cluster models having substantially similar characteristics); and

receive a second speech recognition model based on a second set of training data, the second set of training data originating from a second set of common entities (cluster model 204, Col. 2, lines 35-41, also Fig. 2 shows the two speaker cluster models 202 and 204, each of the speaker cluster models having substantially similar characteristics).

However, Chang et al. does not specifically mention

determine a difference in model information between the first speech recognition model and the second speech recognition model; and

create an independent speech recognition model based on the first set of training data and the second set of training data if the difference in model information is insignificant.

Conversely, Chandrasekar et al. teach a cluster A and a cluster C for which a difference between clusters has been determined to be insignificant. As a result cluster A is merged with cluster C forming a newly merged cluster (Col. 10, lines 59-61 and 65-66).

It would have been obvious to one having ordinary skill in the art at the time of the invention to have used the features of determining a difference between models and creating an independent model as taught by Chandrasekar et al. for Chang et al.'s method and computer program product because Chandrasekar et al.'s invention automatically analyzes a text string and either updates an existing cluster or creates a new cluster (Col. 2, lines 2-4).

8. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al. (US Patent 6,567,776) in view of Chandrasekar et al. (US Patent 6,578,032) and further in view of Newman et al. (US Patent 6,151,575).

As per claim 1, Chang et al. teach a method for generating speech recognition models, the method comprising:

receiving a first speech recognition model based on a first set of recorded phonemes training data, the first set of training data originating from a plurality of female speakers (cluster model 202, Col. 2, lines 35-41 and Col. 4, lines 53-60. According to Col. 2, lines 36-40, speaker clusters 202 and 204 have substantially similar characteristics, also from Col. 4, lines 53-60, the speech data used for the models come from female and male speakers. Therefore, it would have been obvious to conclude that the substantially similar characteristics of cluster model 202 come from same gender speakers, in this case females.); and

receiving a second speech recognition model based on a second set of recorded phonemes training data, the second set of training data originating from a plurality of

male speakers cluster model 204, Col. 2, lines 35-41 and Col. 4, lines 53-60. According to Col. 2, lines 36-40, speaker clusters 202 and 204 have substantially similar characteristics, also from Col. 4, lines 53-60, the speech data used for the models come from female and male speakers. Therefore, it would have been obvious to conclude that the substantially similar characteristics of cluster model 204 come from same gender speakers, in this case males.).

However, Chang et al. does not specifically mention

determining a difference in model information between the first speech recognition model and the second speech recognition model; and

creating a gender-independent speech recognition model based on the first set of recorded phonemes training data and the second set of recorded phonemes training data if the difference in model information is insignificant.

Conversely, Chandrasekar et al. teach a cluster A and a cluster C for which a difference between clusters has been determined to be insignificant. As a result cluster A is merged with cluster C forming a newly merged cluster (Col. 10, lines 59-61 and 65-66).

It would have been obvious to one having ordinary skill in the art at the time of the invention to have used the features of determining a difference between models and creating an independent model as taught by Chandrasekar et al. for Chang et al.'s method and computer program product because Chandrasekar et al.'s invention automatically analyzes a text string and either updates an existing cluster or creates a new cluster (Col. 2, lines 2-4).

However, neither Chang et al. nor Chandrasekar et al. specifically mention the training data to be composed of recorded phonemes.

Conversely, Newman et al. teach

the training data to be composed of recorded phonemes (Col. 3, lines 50-52, Col. 7, lines 3-5, and Col. 8, lines 35-44).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used the feature of the training data being composed of recorded phonemes as taught by Newman et al. for Chang et al.'s method, as modified by Chandrasekar et al. because Newman et al. provides for generating a source-adapted model for use in speech recognition (Col. 2, lines 28-29) wherein sources of speech data include particular speakers or groups of related speakers (Col. 2, lines 44-45).

9. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al. (US Patent 6,567,776) in view of Chandrasekar et al. (US Patent 6,578,032) and Newman et al. (US Patent 6,151,575) as applied to claim 1 above, and further in view of Kanevsky et al. (US Patent 6,529,902).

As per claim 2, Chang et al., as modified by Chandrasekar et al. and Newman et al., teach the method according to claim 1, but they do not specifically disclose whether the model information is insignificant is based on a threshold model quantity. Kanevsky et al. teaches the Kullback-Leibler distance between any two topics is at least h, where h is some sufficiently large threshold (Col. 5, lines 9-11). Further, Kanevsky et al.

teaches using Kullback-Leibler distance, one can check which pairs of topics are sufficiently separated from each other. Topics that are close in this metric could be combined together (Col. 12, lines 44-47).

It would have been obvious to one having ordinary skill in the art at the time of the invention to have used the feature of a threshold model quantity as taught by Kanevsky et al. for Chang et al.'s method, system, and computer program product as modified by Chandrasekar et al. because Kanevsky et al. provides an improved language modeling for off-line automatic speech decoding and machine translation (Col. 2, lines 50-52).

As per claim 3, Chang et al., as modified by Chandrasekar et al. and Newman et al., teach the method according to claim 1, but they do not specifically disclose that determining the difference in model information includes calculating a Kullback-Leibler distance between the first speech recognition model and the second speech recognition model. Kanevsky et al. teaches that for two different sets, one can define a Kullback-Leibler distance using the frequencies of the sets. [With the distance] one can check which pairs of topics are sufficiently separated from each other. Topics that are close in this metric could be combined together (Col. 12, lines 42-47).

As per claim 4, Chang et al., as modified by Chandrasekar et al. and Newman et al., and in further view of Kanevsky et al., teach the method according to claim 3, wherein whether the model information is insignificant is based on a threshold Kullback-

Leibler distance quantity (Kanevsky's Col. 5, lines 9-11, the Kullback-Leibler distance between any two topics is at least h, where h is some sufficiently large threshold, also they teach (Col. 12, lines 44-47) that while using the Kullback-Leibler distance, one can check which pairs of topics are sufficiently separated from each other, and that topics that are close in this metric could be combined together).

10. Claims 7-9 and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al. (US Patent 6,567,776) in view of Chandrasekar et al. (US Patent 6,578,032) as applied to claims 6, 11, and 16 above, and further in view of Kanevsky et al. (US Patent 6,529,902).

As per claims 7 and 12, Chang et al., as modified by Chandrasekar et al., teach the system and computer program product according to claims 6 and 11, but they do not specifically disclose whether the model information is insignificant is based on a threshold model quantity. Kanevsky et al. teaches the Kullback-Leibler distance between any two topics is at least h, where h is some sufficiently large threshold (Col. 5, lines 9-11). Further, Kanevsky et al. teaches using Kullback-Leibler distance, one can check which pairs of topics are sufficiently separated from each other. Topics that are close in this metric could be combined together (Col. 12, lines 44-47).

It would have been obvious to one having ordinary skill in the art at the time of the invention to have used the feature of a threshold model quantity as taught by Kanevsky et al. for Chang et al.'s method, system, and computer program product as modified by Chandrasekar et al. because Kanevsky et al. provides an improved

language modeling for off-line automatic speech decoding and machine translation (Col. 2, lines 50-52).

As per claim 8, Chang et al., as modified by Chandrasekar et al., teach the system according to claim 6, but they do not specifically disclose that determining the difference in model information includes calculating a Kullback-Leibler distance between the first speech recognition model and the second speech recognition model. Kanevsky et al. teaches that for two different sets, one can define a Kullback-Leibler distance using the frequencies of the sets. [With the distance] one can check which pairs of topics are sufficiently separated from each other. Topics that are close in this metric could be combined together (Col. 12, lines 42-47).

As per claim 13, Chang et al., as modified by Chandrasekar et al., teach the computer program product according to claim 11, but they do not specifically disclose that determining the difference in model information includes calculating a Kullback-Leibler distance between the first model and the second model. Kanevsky et al. teaches that for two different sets, one can define a Kullback-Leibler distance using the frequencies of the sets. [With the distance] one can check which pairs of topics are sufficiently separated from each other. Topics that are close in this metric could be combined together (Col. 12, lines 42-47).

As per claims 9 and 14, Chang et al. as modified by Chandrasekar et al. and in further view of Kanevsky et al. teach the system, and computer program product according to claims 8 and 13, wherein whether the model information is insignificant is based on a threshold Kullback-Leibler distance quantity (Kanevsky's Col. 5, lines 9-11, the Kullback-Leibler distance between any two topics is at least h, where h is some sufficiently large threshold, also they teach (Col. 12, lines 44-47) that while using the Kullback-Leibler distance, one can check which pairs of topics are sufficiently separated from each other, and that topics that are close in this metric could be combined together).

11. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al. (US Patent 6,567,776) in view of Chandrasekar et al. (US Patent 6,578,032) and Newman et al. (US Patent 6,151,575) as applied to claim 1 above, and further in view of Wark (US 2003/0231775).

As per claim 5, Chang et al., as modified by Chandrasekar et al. and Newman et al., teach the method of claim 1, but they do not disclose the first speech recognition model, second speech recognition model, and gender-independent speech recognition model are Gaussian mixture models.

However, Wark teaches multiple class models defined as Gaussian mixture models (paragraph [0135], the Gaussian mixture model Xc with c=1,2, ..., C, where C is the number of class models).

It would have been obvious to one having ordinary skill in the art at the time of the invention to have defined the models as Gaussian mixture models as taught by Wark for Chang et al.'s method, system, and computer program product as modified by Chandrasekar et al. because Wark's invention relates generally to audio signal processing and, in particular, to the classification of semantic events in audio streams (paragraph [0001]).

12. Claims 10 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al. (US Patent 6,567,776) in view of Chandrasekar et al. (US Patent 6,578,032) as applied to claims 6 and 11 above, and further in view of Wark (US 2003/0231775).

As per claims 10 and 15, Chang et al. as modified by Chandrasekar et al., teach the system and computer program product of claims 6 and 11, but they do not disclose the first speech recognition model, second speech recognition model, and gender-independent speech recognition model are Gaussian mixture models.

However, Wark teaches multiple class models defined as Gaussian mixture models (paragraph [0135], the Gaussian mixture model Xc with c=1,2, ..., C, where C is the number of class models).

It would have been obvious to one having ordinary skill in the art at the time of the invention to have defined the models as Gaussian mixture models as taught by Wark for Chang et al.'s method, system, and computer program product as modified by Chandrasekar et al. because Wark's invention relates generally to audio signal

processing and, in particular, to the classification of semantic events in audio streams (paragraph [0001]).

13. Claims 17-18, 21-22 and 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wark (US 2003/0231775) in view of Verma et al. (US 2002/0174086), and further in view of Chang et al. (US Patent 6,567,776), Chandrasekar et al. (US Patent 6,578,032), and Newman et al. (US Patent 6,151,575).

As per claims 17, 21, and 24, Wark teaches a method, system, and computer program product for recognizing speech from an audio stream originating from one of a plurality of data classes, the method comprising:

receiving a current feature vector of the audio stream (modules 202, 206, and 208 from Fig. 2, and Paragraph [0139].); and

computing a current vector probability that the current feature vector belongs to one of the plurality of data classes (Paragraph [0139] describes equation (30) which calculates the model score between the clip feature vectors ft of the segment and one of the C object models (C is the number of class models as defined in paragraph [0135]). The model score is the summing of the log of the probability of the feature vector fi belonging to class λc.).

However, Wark does not specifically mention

computing an accumulated confidence level that the audio stream belongs to one of the plurality of data classes based on the current vector probability and on previous vector probabilities;

weighing class models based on the accumulated confidence; and

recognizing the current feature vector based on the weighted class models.

Conversely, Verma et al. teaches an accumulated confidence level that the data stream belongs to one of the plurality of data classes based on the current vector probability and on previous vector probabilities (paragraph [0020], cumulative mean Hi of the sample confidence Lij over a large number of samples is used to measure the overall discrimination capability of the classifier, also paragraphs [0018] and [0019] describe the sample confidence Lij as the log-likelihood of the kth most likely class such that the l_{ijk}s form order statistics, that is lijl>lij2>...>lijn) ; weighing class models based on the accumulated confidence (paragraph [0024], a weight wij is assigned to each classifier as a function of the overall confidence Hi and the sample confidence Lij); and recognizing the current feature vector based on the weighted class models (paragraph [0024], once weights wij for each classifier are known, each incoming sample can be classified in a class by calculating the combined log-likelihood for each class).

It would have been obvious to one having ordinary skill in the art at the time of the invention to have used the feature of a cumulative confidence level as taught by Verma et al. for Wark's method, system, and computer program product because Verma et al. provides method, system, and computer program product that improves the classification accuracy of particular decision fusion applications such as medical imaging, biometric verification, signature or fingerprint verification, robot vision, speech recognition, image retrieval, expert systems, etc (paragraph [0002]).

However, neither Wark nor Verma et al. specifically mention

wherein the plurality of data classes include a female speech recognition model based on recorded phonemes originating from plurality of female speakers, a male speech recognition model based on recorded phonemes originating from plurality of male speakers, and a gender- independent speech recognition model based on recorded phonemes originating from plurality of both female and male speakers having insignificant differences in information.

Conversely, Chang et al, in view of Chandrasekar et al., and further in view of Newman et al. teach

wherein the plurality of data classes include a female speech recognition model based on recorded phonemes originating from plurality of female speakers, a male speech recognition model based on recorded phonemes originating from plurality of male speakers, and a gender- independent speech recognition model based on recorded phonemes originating from plurality of both female and male speakers having insignificant differences in information (see rejection for claim 1).

As per claims 18, 22, and 25, Wark, as modified by Verma et al., Chang et al, Chandrasekar et al, and Newman et al., teach the method, system, and computer program product according to claims 17, 21 and 24 above, wherein computing the current vector probability includes estimating an a posteriori class probability for the current feature vector. (Wark's equation (30) clearly makes use of $p(fi/\lambda c)$ or the probability that feature vector fi belongs to class λc. This conditional probability is

equivalent to an a posteriori probability because it is the probability of the feature vector given that it belongs to a certain class).

14. Claims 20 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wark (US 2003/0231775) in view of Verma et al. (US 2002/0174086), and further in view of Chang et al. (US Patent 6,567,776), Chandrasekar et al. (US Patent 6,578,032), and Newman et al. (US Patent 6,151,575) as applied to claims 17 and 24 above, and further in view of Catchpole (US 2005/0251390).

As per claims 20 and 27, Wark, as modified above, teach the method and computer program product according to claims 17 and 24 above, but they do not specifically disclose the method and computer program product further comprising determining if another feature vector is available for analysis.

However Catchpole teaches a lexical tree processor that attempts to read the next feature vector from the feature vector buffer and if it's not available an error occurs, if the vector is available the tree processor reads the feature vector from the buffer (paragraph [0044], first lines).

It would have been obvious to one having ordinary skill in the art at the time of the invention to have used the feature of determining if another feature vector is available for analysis as taught by Catchpole for Wark's method and system, as modified above because Catchpole provides a circuit that performs parallel processing of speech parameters (paragraph [0004]).

15. Claims 19, 23, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wark (US 2003/0231775) in view of Verma et al. (US 2002/0174086), and further in view of Chang et al. (US Patent 6,567,776), Chandrasekar et al. (US Patent 6,578,032), and Newman et al. (US Patent 6,151,575) as applied to claims 17, 21, and 24 above, and further in view of Elsner et al. (Bayesian Analysis of U.S. Hurricane Climate-2001).

As per claims 19, 23 and 26, Wark, as modified above, teach the method, system, and computer program product of claims 17, 21, and 24, respectively, but they do not specifically mention wherein computing the accumulated confidence level further comprising weighing the current vector probability more than the previous vector probabilities.

However, Elsner et al. teach

wherein computing the accumulated confidence level further comprising weighing the current vector probability more than the previous vector probabilities (Section 6. Refinements, First paragraph lines 13-23).

It would have been obvious to a person having ordinary skill in the art at the time of the invention to have used the feature of weighing the current vector probability more than the previous vector probabilities as taught by Elsner et al. for Wark's method, system, and computer program product, as modified above, because Elsner et al. provides a Bayesian probability approach which gives a rational and coherent foundation for using all available information while explicitly accounting for differences in uncertainty (Elsner et al., Section 4, lines 7-10). This approach is well known in the field

of probability and statistics. It would have also been obvious to a person having ordinary skill in the art at the time of the invention to give more weight to current information, which carries more importance, than to past information. The accumulation of these probabilities permits small or big changes in time to be noticeable which is also helpful for determining future probabilities.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NATALIE LENNOX whose telephone number is (571)270-1649. The examiner can normally be reached on Monday to Friday 9:30 am - 7 pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (571)272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NL 03/17/2008

/Richemond Dorvil/
Supervisory Patent Examiner, Art Unit 2626